

Applicant: Carlo Amalfitano
Application No.: 09/778,478

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 25, 27, 29-32, 34, and 36-38 are currently pending in this application. Claims 25 and 32 are amended.

Claim Rejections - 35 USC §103

Claims 25, 29-32, and 36-38 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,324,184 to Hou et al. (hereinafter "Hou") in view of U.S. Patent No. 6,085,241 to Otis.

The Applicant respectfully disagrees. Pending claims 25, 27, 29-32, 34, and 36-38 recite a base station for providing multiple grades of service to a plurality of subscriber units requesting traffic channels by assigning a priority level for each of the detected requests, the priority level associated with the subscriber unit transmitting the request, wherein the priority level of the subscriber unit depends on the priority level of all inactive users and on subscriber unit's historical usage of base station resources.

Hou discloses a method for allocating uplink bandwidth to subscriber units. A MAC management entity maintains a historical record of bandwidth usage for each subscriber unit such that users with low usage levels are given a higher priority when requesting an otherwise limited bandwidth level (column 11, lines 50-55). The maximum bandwidth that a user is assigned is limited by comparing the assigned

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bandwidth to a ceiling value (column 11, lines 31-36 and 46-47). The subscriber units do not need to send a signal to the central controller to request bandwidth or report the subscriber unit buffer size (column 8, lines 34-36).

In contrast to the present claims, Hou merely teaches allocating bandwidth in the uplink direction. More particularly, in Hou, a MAC management entity monitors bandwidth usage in upstream channels and adjusts the assigned bandwidth for each user accordingly (Abstract and column 11, line 64 to column 12, line 1). Although Figures 2 and 5 in Hou show a bi-directional communication network, Hou merely discloses performing dynamic bandwidth allocation in the uplink direction (column 2, lines 57-60 and column 3, lines 15-19). Unlike the pending claims, Hou discloses that a maximum (e.g., ceiling) uplink bandwidth may be imposed on a subscriber unit (column 11, lines 46-47). The maximum bandwidth that a subscriber unit is assigned may be limited by comparing the assigned bandwidth to a ceiling value (column 11, lines 31-33). According to Hou, a traffic count is determined for each subscriber unit by counting the number of slots used in a control interval where the slot usage rate corresponds to a bandwidth (column 2, lines 7-12).

Hou also teaches that it is possible to use a timing mechanism to provide a heavy user with additional bandwidth; however, this is possible only for a certain amount of time (column 11, lines 47-55).

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In further contrast to the present claims, Hou fails to teach "comparing a continuous time allocation of channel resources for each of the subscriber units against a time threshold and adjusting the priority level when the time threshold is exceeded" as recited in the amended claim 25. Hou also fails to teach "detecting a request from a plurality of subscriber units to transmit data to or receive data from the base station using a plurality of traffic channels" as recited in claim 25. Hou fails to teach or disclose the use of a similar timing threshold. It is noted that creating a maximum bandwidth for a subscriber unit as taught in Hou and adjusting the priority level of a subscriber unit when a time threshold is exceeded as recited in claim 25 are fundamentally different activities.

Otis teaches a method for monitoring and controlling network-user bandwidth usage and costs, and a bandwidth manager for network segments comprising a pair of media access controllers (column 2, lines 19-53). The Examiner cites column 7, line 60 through column 8, line 8, of Otis as disclosing the feature of adjusting the priority level of a subscriber unit when a time threshold is exceeded. Applicant respectfully disagrees. Although Otis discloses that a limiter may be used to control the maximum duty cycle that can be elicited by any one connection client, Otis does not teach a timing threshold that is used to adjust the priority level of a subscriber unit when the threshold is exceeded. Because the combination of Hou and Otis fails to teach or suggest all of the elements of claim 25, claim 25 is patentable over Hou

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and Otis. Claims 27 and 29-31 depend from claim 25 and should therefore also be patentable over the combination of Hou and Otis. Similar arguments may be made in regard to claims 32, 34, and 36-38.

Claims 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,324,184 B1 to Hou et al. (hereinafter "Hou") in view of U.S. Patent No. 6,085,241 to Otis as applied to claims 25 and 32 above, and further in view of U.S. Patent No. 6,473,793 to Dillon et al. (hereinafter "Dillon").

The Applicant respectfully disagrees. Dillon discloses a hybrid gateway including the functionality that allows bandwidth on a network to be dynamically allocated and enforced. The network compares the data transferred to a user with stored thresholds to implement the throttling of bandwidth based on historical usage patterns (column 17, lines 16-19). The stored thresholds indicate a certain amount of data instead of a time threshold measuring the continuous allocation of channel resources as recited in the pending claims. Unlike Dillon, the pending claims measure the overuse of channel resources based on the continuous allocation of the channel resources.

For the above reasons, withdrawal of the rejection of claims 27 and 34 over Hou in view of Otis and further in view of Dillon and allowance is respectfully requested.

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Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, the Applicant respectfully submits that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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